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United States Department of Agriculture
Natural Resources Conservation Service

Idaho Water Supply Outlook Report May 1, 2007

Anderson Ranch Reservoir Dam

Anderson Ranch Reservoir, with 450,000 acre-feet of useable capacity, is 83% full. Add Anderson to Lucky Peak and Arrowrock reservoirs and as a whole the Boise system is 88% full; this is 130% of its average storage for this time of year. The same story of good carryover storage from last year and above average reservoir levels is repeated throughout Idaho, including reservoirs in the Upper and Southside Snake, Payette, Clearwater, Wood and Lost basins. With a low snow winter like 2006-2007, this is good news for Idaho's multi-million dollar agriculture industry which will be dependant on this water for irrigation in the coming months.

Basin Outlook Reports
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Natural Resources Conservation Service
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9173 West Barnes Drive, Suite C
Boise, Idaho 83709-1574
(208) 378-5740

Internet Web Address
http://www.id.nrcs.usda.gov/snow/

How forecasts are made

Most of the annual streamflow in the western United States originates as snowfall that has accumulated in the mountains during the winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Measurements of snow water equivalent at selected manual snow courses and automated SNOTEL sites, along with precipitation, antecedent streamflow, and indices of the El Niño / Southern Oscillation are used in computerized statistical and simulation models to prepare runoff forecasts. These forecasts are coordinated between hydrologists in the Natural Resources Conservation Service and the National Weather Service. Unless otherwise specified, all forecasts are for flows that would occur naturally without any upstream influences.

Forecasts of any kind, of course, are not perfect. Streamflow forecast uncertainty arises from three primary sources: (1) uncertain knowledge of future weather conditions, (2) uncertainty in the forecasting procedure, and (3) errors in the data. The forecast, therefore, must be interpreted not as a single value but rather as a range of values with specific probabilities of occurrence. The middle of the range is expressed by the 50% exceedance probability forecast, for which there is a 50% chance that the actual flow will be above, and a 50% chance that the actual flow will be below, this value. To describe the expected range around this 50% value, four other forecasts are provided, two smaller values (90% and 70% exceedance probability) and two larger values (30%, and 10% exceedance probability). For example, there is a 90% chance that the actual flow will be more than the 90% exceedance probability forecast. The others can be interpreted similarly.

The wider the spread among these values, the more uncertain the forecast. As the season progresses, forecasts become more accurate, primarily because a greater portion of the future weather conditions become known; this is reflected by a narrowing of the range around the 50% exceedance probability forecast. Users should take this uncertainty into consideration when making operational decisions by selecting forecasts corresponding to the level of risk they are willing to assume about the amount of water to be expected. If users anticipate receiving a lesser supply of water, or if they wish to increase their chances of having an adequate supply of water for their operations, they may want to base their decisions on the 90% or 70% exceedance probability forecasts, or something in between. On the other hand, if users are concerned about receiving too much water (for example, threat of flooding), they may want to base their decisions on the 30% or 10% exceedance probability forecasts, or something in between. Regardless of the forecast value users choose for operations, they should be prepared to deal with either more or less water. (Users should remember that even if the 90% exceedance probability forecast is used, there is still a 10% chance of receiving less than this amount.) By using the exceedance probability information, users can easily determine the chances of receiving more or less water.

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IDAHO WATER SUPPLY OUTLOOK REPORT

May 1, 2007

SUMMARY

Warm temperatures and lack of storms the past few months have Idaho's mountains looking more like June 1 rather than May 1. Moderate high elevation temperatures were able to keep the highest elevation SNOTEL sites fluttering near their peak snow water content during April. However at low to mid-elevation warm conditions melted snow; in fact 30 SNOTEL sites in the Idaho monitoring area melted out by May 1. Normally only three sites are melted by May 1. Current snowpacks are 0-5% of average in the Owyhee, Willow and Blackfoot basins; 15-28% in the Little Wood, Big Lost, Portneuf, Teton and Weiser basins; 30-55% across most of central Idaho, the Bear River and Upper Snake basin. The highest snowpacks remain in the Panhandle and Clearwater basin at 70-80% of average.

Streamflow forecasts mirror the snowpack with the lowest forecasts 20-40% of average in the Owyhee, Big Wood, Little Wood, and Bear River basins. Highest forecasts are near average in the Moyie and Kootenai river basins which originates in southern Canada and were able to catch some moisture from the winter storms that tracked north of the rest of Idaho. The Snake River near Heise streamflow forecast calls for 68% of average, similar to 2000-2005 runoff volumes. Magic Reservoir inflow is only forecast at 22%, Big Lost River below Mackay Reservoir at 47%, Salmon Falls and Oakley basins at 60%, and the Boise River at 56%.

Irrigators in the Owyhee, Salmon Falls and Oakley basins will have adequate irrigation supplies this year due to good reservoir storage. Depending on your water right, some shortages are expected in the Boise, Big Wood, Upper Snake and Bear River basins. Most severe surface irrigation shortages are expected in the Big Lost and Little Lost basins and other basins without storage facilities. These projections are based on the 50% Chance of Exceedance Forecasts.

Most streams in Idaho started increasing with the warm temperatures in late April, but cool, wet weather predicted for early May will put a damper on streams peaking too early. This is good news for Idaho's numerous water users. Usually, in below normal snow years, the later the melt occurs, the better off we are later in the summer. Weather patterns in early May are shifting back to more normal temperatures and will hopefully bring moisture into the state. The duration and intensity of precipitation events could change the magnitude and timing of runoff, but will probably not increase runoff volumes by much. Rain induced hydrographs are usually flashy in nature and do not have the volume of water associated with them that snowmelt driven hydrographs do. If this wet weather happens, the good news is that it would delay irrigation demands and allow this water to be used later in summer.

SNOWPACK

The lack of snow is the story this month. The following facts about Idaho's May 1 snowpack are based on historic May 1 snow indexes; these indexes are found on the following web page: http://www.id.nrcs.usda.gov/snow/data/historic.html#snoindex

- Owyhee basin snow is the 3rd lowest since 1981.
- Bruneau basin snow is 57% of average and half of last year.
- Salmon Falls at 50% is the lowest since 2001.
- Oakley basin is 50% of average and had nearly three times more snow last year which helped prime the springs and baseflows.
- Bear River snowpack at 33% of average is the lowest since 1992.
- Snake River snowpack above Palisades Reservoir is 48% of average, half of last year, and about the same as in 2001 when the runoff volume was half of average.
- Henrys Fork snowpack is 43% of average, about the same as in 2001.
- Little Lost basin snow is the 2nd lowest since 1982 and is one-third of last year.

- Big Lost basin snow is 25% of average, 2nd lowest since records start in 1980, only 1987 had less snow on May 1.
- Little Wood River snow at 17% of average is the 3rd lowest since 1981, only 1987 and 1992 had less snow.
- Big Wood basin above Hailey snow is 43% of average, 4th lowest since 1961.
- Boise and Payette basin snowpacks are 47% of average, 6th lowest since 1961.
- Weiser basin's snow is 22% of average, the 6th lowest since 1982.
- Lemhi basin snowpack is 67% of average and about the same as in 2005.
- Middle Fork Salmon basin snowpack is 46% of average and similar to 2004 and 2001.
- Salmon basin snow is 55% of average, less than half of last year.
- Selway and Lochsa watersheds are 57% of average, 8th lowest since 1961.
- Clearwater basin snowpack is 69% of average, and very similar to 2004.
- Idaho Panhandle Region snowpack is 78% of average and has less snow than last year but more than in 2004.

PRECIPITATION

The storm track favored southern Idaho, Nevada, and Utah instead of northern Idaho's Panhandle and Clearwater regions. In fact, lowest April amounts were in the Panhandle Region and Big Lost basin at 55% of average. The Little Lost basin, eastern Idaho and Upper Snake received 80-90% of average precipitation. A handful of SNOTEL stations received only one inch or less of precipitation in April; these amounts are more typical of July averages, but let's hope the summer does not follow this trend. Stations that received an inch or less include Myrtle Creek near Bonners Ferry, Chocolate Gulch and Soldier Ranger Station in the Big Wood basin, Stickney Mill in the Big Lost basin, and Mud Flat and Taylor Canyon (Nevada) in the Owyhee basin.

Water year–to-date precipitation, which started this season on a wet note, is now only slightly above average in the Panhandle Region and Oakley basin at 105%. Near average rain and snow amounts have fallen in the Clearwater, Salmon Falls, and Bruneau basins. Elsewhere, water year-to-date amounts range from 73% of average in the Big Lost to 85% in the Salmon and Little Lost basins.

Soil moisture levels were in good shape going into winter; however with lack of precipitation, soils are drying rapidly and may not be saturated enough to improve runoff efficiency by as much as originally thought. Soil moisture sensors were increasing with snowmelt, but will dry rapidly without additional precipitation. Precipitation is needed now to improve runoff efficiency. Based on the Big Wood River snowmelt runoff model, we have learned that it takes about three-quarters of an inch of rain in a day to prime the soils after melt out has occurred. After that and within three days, only one-third of an inch is needed to start producing runoff. This model predicts snowmelt driven peak flows in the Big Wood and adjacent basins and is updated several times a week during the snowmelt runoff season. Model results are posted to this webpage: http://www.id.nrcs.usda.gov/snow/watersupply/peakflow.html#wood_lost.

RESERVOIRS

Reservoir operators and river runners will be watching the weather in May to see if Mother Nature has any curveballs or heated fast balls to throw, or if moderate temperatures and precipitation will prevail allowing for normal reservoir operations this spring. Reservoirs are operated using rule curves to determine allowable storage levels, which are based primarily on projected inflows. As a result of less snow, streamflow forecasts are below normal, and allow more water to be stored in the early runoff season, thus, helping to ensure maximum refill. As a result, most reservoirs are reporting current levels that are 105-150% above their average April 30 amounts.

Many reservoirs are 80-97% of capacity with the exception of Bear Lake, Salmon Falls, Oakley, Blackfoot and Ririe, which are 45-75% full. These particular reservoirs will not refill, primarily due to the size and series of dry years. Reservoirs will be drafted earlier than normal as inflows fail to meet downstream demands. Thus, many reservoirs will be at their minimal storage levels by summer's end making Idaho's water users highly dependent on ample snowfall next year. In some basins, water users feel they can get by this year, but are

already very concerned about next year. When your ability to make a living depends on weather and water, your worries are never over.

Note: NRCS reports reservoir information in terms of usable volumes, which includes both active, inactive and in some cases, dead storage. Other operators may report reservoir contents in different terms. For additional information, see the reservoir definitions in this report.

STREAMFLOW

When Punxsutawney Phil didn't see his shadow and predicted an early spring he was right on the money. This is especially true for streamflow forecasts that call for below average spring runoff since February's Ground Hog Day. This trend continues this month as most forecasts dropped another 3-10% since April 1. The biggest decreases are the Boise, Payette and Weiser basins which are now forecast at 50-60% of average. In general, forecasts decrease from north to south across Idaho. The northern Panhandle basins, including the Moyie, Kootenai and Priest Rivers, will have near normal runoff volumes; however just to the south the St. Joe, North Fork Coeur d'Alene and Spokane Rivers will flow at 70-80% of average. The Clearwater, Selway and Lochsa Rivers are all forecast at around 80% of average. Moving south, the Salmon and Lemhi basins forecasts take another hit, dropping to 60-70% of average. Forecasts in the Wood and Lost basins are between 20-50% of average, considerably lower than in the west-central basins mentioned earlier. The Upper Snake basins are forecast between 60-70% of average; similar conditions exist in the Oakley, Bruneau and Salmon Falls basins where streams are forecast at around 60-65%. Forecasts are lower for the Owyhee River residual flows at 30-45% of average, as well as for streams in the Bear River basin that are forecast at 20-60% of average.

Note: Forecasts published in this report are NRCS guidance forecasts. NRCS is using SNOTEL data in a timely manner to provide timely streamflow forecast for users. Official jointly coordinated and published forecasts by the USDA Natural Resources Conservation Service and the US Department of Commerce, NOAA, National Weather Service are available from the joint west-wide Water Supply Outlook for the Western US at http://www.wcc.nrcs.usda.gov/wsf/westwide.html. The forecast numbers mentioned in the narrative are the volume under the 50% Chance of Exceeding, which means there is a 50% chance the volume will be greater or less than the given value. Water users may wish to use a lesser exceedance forecast to reduce the risk of coming up water short.

RECREATION

Is it time to hang the skis, winterize the sleds, and get the summer gear ready? Lack of snow in the high country will provide snow free access earlier to higher elevations, especially when compared to last year when there was two to three times more snow in Idaho's mountains. With snowpacks ranging from 5% of average in the Owyhee basin to 75% in the Panhandle Region, residual streamflow forecasts range from 20-100% of average across the state. Snowmelt streamflow peaks have occurred in the Owyhee, Camas Creek, Little Wood, and other low elevation basins. Mild temperatures in late April finished ripening the high elevation snowpack and allowed streams to rise. Cool, wet weather in early May will cause a decrease in flows and result in multiple peaks later this spring. Even though the Bruneau basin snowpack is 57% of average, there is still enough high elevation snow to generate another stream peak, but it won't last long so you'd better be ready to catch the wave moving downstream. The Middle Fork Salmon River snowpack is 46% of average and streamflow is forecast at 64% of average. Peak flows will be moderate, probably in the 5.0 - 5.5 foot range unless really hot temperatures occur. A Middle Fork Salmon River gage height of 2.0 feet is likely by early July, so plan accordingly and watch out for logs from last year's flash flood above Pistol Creek. The Main Salmon will have a long floating season with runoff volumes of 68% of average, similar to 2004 and 2005 runoff seasons. The Selway and Lochsa rivers are forecast at 81% of average and will provide excellent river running opportunities even with the snow at 57%. To keep an eye on peak and recession streamflows use the link to "Peak Streamflow for Individual Basins" on the Idaho Snow Survey Water Supply page: http://www.id.nrcs.usda.gov/snow/watersupply/.

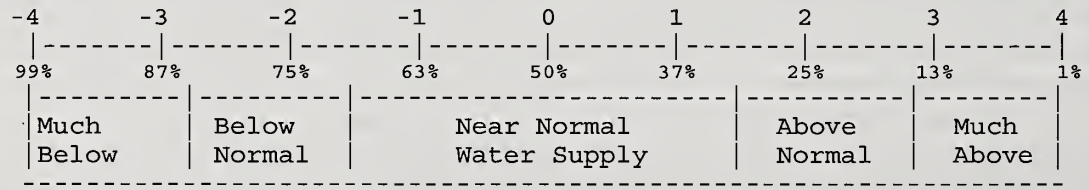
IDAHO SURFACE WATER SUPPLY INDEX (SWSI) *As of May 1, 2007*

The Surface Water Supply Index (SWSI) is a predictive indicator of surface water availability within a watershed for the spring and summer water use season. The index is calculated by combining pre-runoff reservoir storage (carryover) with forecasts of spring and summer streamflow. SWSI values are scaled from +4.0 (abundant supply) to -4.0 (extremely dry), with a value of zero indicating a median water supply as compared to historical occurrences. The SWSI analysis period is from 1971 to present.

SWSI values provide a more comprehensive outlook of water availability by combining streamflow forecasts and reservoir storage where appropriate. The SWSI index allows comparison of water availability between basins for drought or flood severity analysis. Threshold SWSI values have been determined for some basins to indicate the potential for agricultural irrigation water shortages.

BASIN or REGION	*SWSI Value*	*Most Recent Year With Similar SWSI Value*	*Agricultural Water Supply Shortage May Occur When SWSI is Less Than*
PANHANDLE	-1.9	1995	NA
CLEARWATER	-1.7	2005	NA
SALMON	-1.6	2000	NA
WEISER	-2.7	1990	NA
PAYETTE	-1.8	2002	NA
BOISE	-1.6	2002	-2.4
BIG WOOD	-1.6	2005	-0.7
LITTLE WOOD	-2.5	1990	-2.2
BIG LOST	-2.0	2000	-0.2
LITTLE LOST	-2.7	2003	0.2
HENRYS FORK	-1.7	2004	-3.3
SNAKE (HEISE)	-0.7	2000	-1.8
OAKLEY	0.5	1996	-1.1
SALMON FALLS	-0.1	1993	-1.3
BRUNEAU	-0.9	2003	NA
BEAR RIVER	-1.8	2002	-3.4

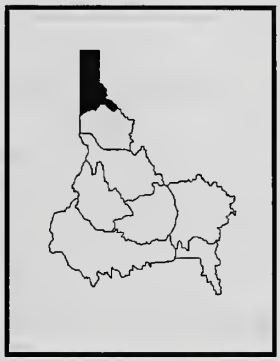
SWSI SCALE, PERCENT CHANCE OF EXCEEDANCE, AND INTERPRETATION

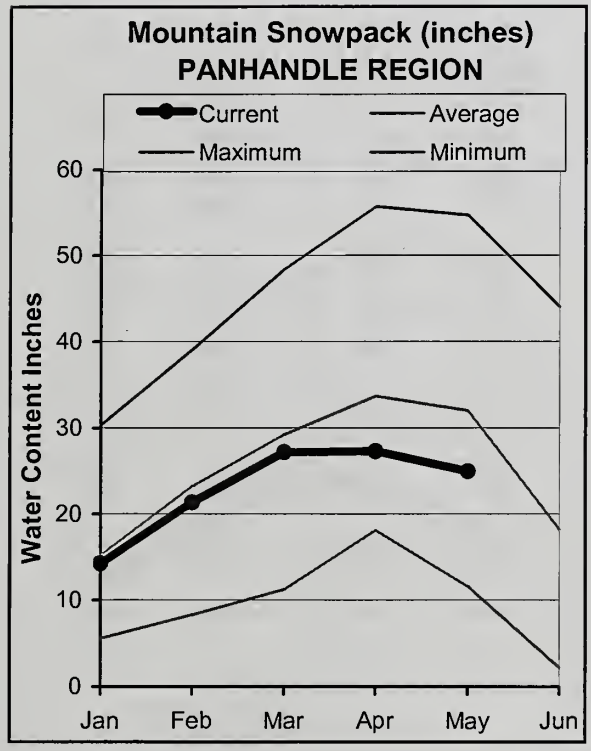


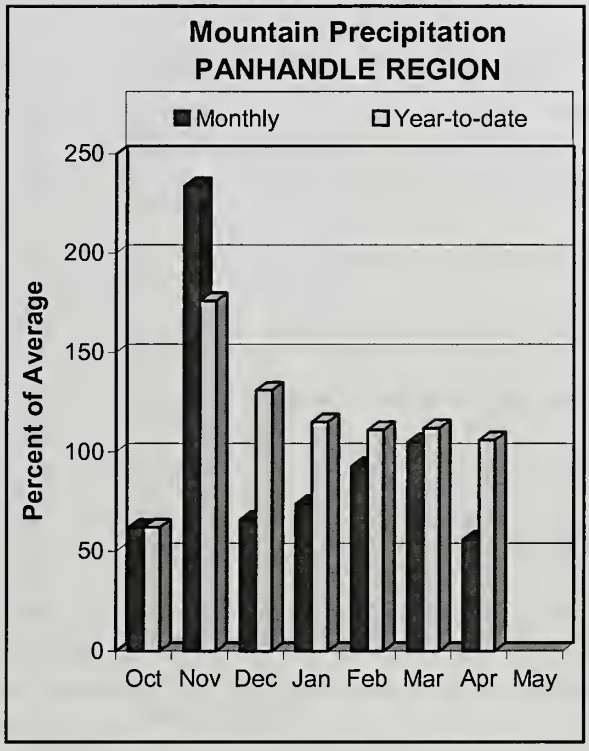
NA = Not Applicable

Note: The Percent Chance of Exceedance is an indicator of how often a range of SWSI values might be expected to occur. Each SWSI unit represents about 12% of the historical occurrences. As an example of interpreting the above scale, the SWSI can be expected to be greater than -3.0, 87% of the time and less than -3.0, 13% of the time. Half the time, the SWSI will be below and half the time above a value of zero. The interval between -1.5 and +1.5 described as "Near Normal Water Supply," represents three SWSI units and would be expected to occur about one-third (36%) of the time.

PANHANDLE REGION
MAY 1, 2007







WATER SUPPLY OUTLOOK

Even with below average April precipitation the numerous lakes in northern Idaho should fill. Panhandle April precipitation was the lowest in the state at just over half of average. Fortunately, precipitation since the water year started October 1 remains slightly above average due to heavy November rains. Snowpacks remain the best in the state at 78% of average. Warmer temperatures in April caused four of the eighteen SNOTEL sites below 4,700 feet in elevation to melt out. The best snowpacks remain in the basins originating in Canada including: Moyie River at 108% of average, Kootenai River above Bonners Ferry at 91%, and Priest River at 78%. Pend Oreille and Priest lakes are storing average amounts and streamflow forecasts range from 70% of average in the Coeur d'Alene basin to 99% for the Moyie and Kootenai rivers. Water supplies should be adequate given the entire Panhandle Region snowpack is 78% of average, less than last year, but better than 2004.

PANHANDLE REGION

Streamflow Forecasts - May 1, 2007

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
KOOTENAI at Leonia (1,2)	MAY-JUL	5520	6040	6280	102	6520	7040	6170
	MAY-SEP	6520	7100	7370	102	7640	8220	7250
MOYIE RIVER at Eastport	MAY-JUL	290	330	355	108	380	420	330
	MAY-SEP	305	345	370	107	395	435	345
SMITH CREEK	MAY-JUL	71	85	95	91	106	122	104
	MAY-SEP	74	90	101	91	113	132	111
BOUNDARY CREEK	MAY-JUL	84	92	97	95	103	111	102
	MAY-SEP	88	96	102	94	108	117	108
CLARK FK at Whitehorse Rpds (1,2)	MAY-JUL	6350	7590	8160	85	8730	9970	9590
	MAY-SEP	7200	8590	9220	86	9850	11200	10700
PEND OREILLE Lake Inflow (2)	MAY-JUL	7510	8410	9020	85	9630	10500	10600
	MAY-SEP	8420	9420	10100	86	10800	11800	11800
PRIEST near Priest River (1,2)	MAY-JUL	445	505	545	89	590	655	615
	MAY-SEP	485	550	595	89	640	715	670
NF COEUR D'ALENE RIVER AT ENAVILLE	MAY-JUL	215	270	315	72	360	435	440
	MAY-SEP	245	305	350	73	400	475	480
ST. JOE at Calder	MAY-JUL	540	610	660	78	715	795	845
	MAY-SEP	595	670	725	80	780	865	910
SPOKANE near Post Falls (2)	MAY-JUL	770	1000	1160	70	1320	1550	1670
	MAY-SEP	830	1070	1240	70	1410	1650	1770
SPOKANE at Long Lake (2)	MAY-JUL	940	1210	1390	73	1570	1840	1910
	MAY-SEP	1120	1400	1590	75	1780	2060	2130

PANHANDLE REGION

Reservoir Storage (1000 AF) - End of April

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
HUNGRY HORSE	3451.0	2926.0	2484.0	1954.8
FLATHEAD LAKE	1791.0	896.6	1134.0	931.9
NOXON RAPIDS	335.0	318.8	312.1	272.3
PEND OREILLE	1561.3	938.1	946.2	916.7
COEUR D'ALENE	238.5	167.9	219.5	249.7
PRIEST LAKE	119.3	100.1	107.4	102.5

PANHANDLE REGION

Watershed Snowpack Analysis - May 1, 2007

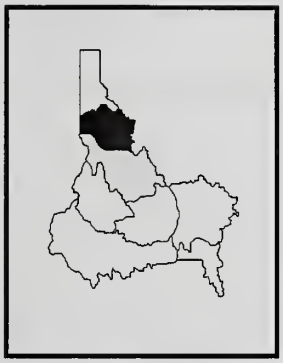
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Kootenai ab Bonners Ferry	31	89	91
Moyie River	10	114	108
Priest River	4	63	79
Pend Oreille River	88	72	74
Rathdrum Creek	1	22	29
Hayden Lake	0	0	0
Coeur d'Alene River	7	65	57
St. Joe River	4	79	72
Spokane River	10	66	59
Palouse River	1	0	0

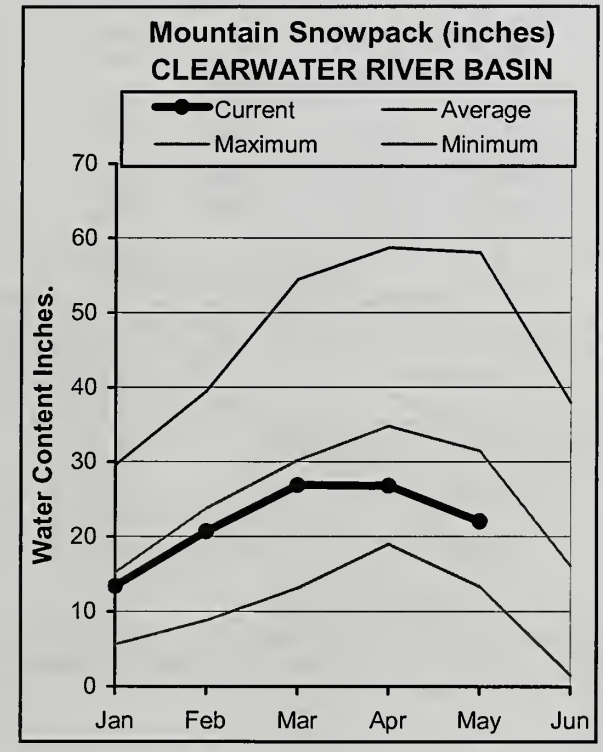
* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

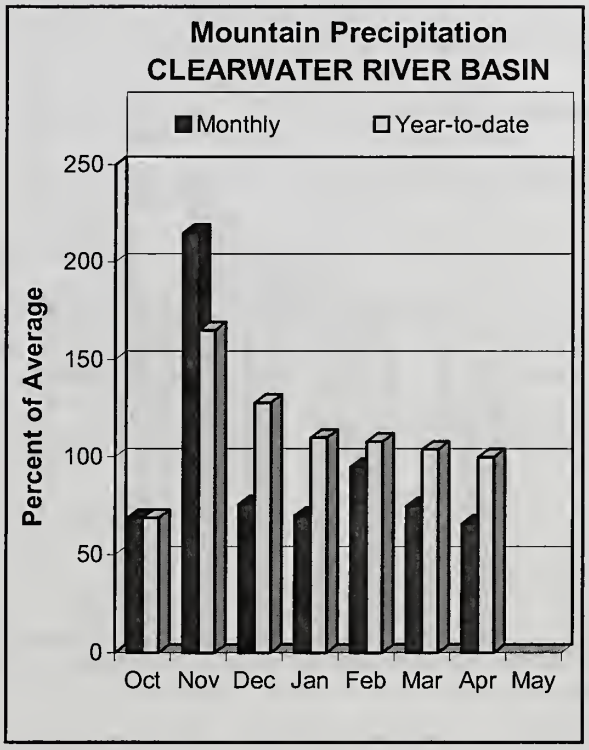
The average is computed for the 1971-2000 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

CLEARWATER RIVER BASIN
MAY 1, 2007







WATER SUPPLY OUTLOOK

April precipitation was 66% of average, just enough to keep the water year-to-date precipitation percentage from dipping below average. Snowpacks currently range from 73% of average in the North Fork Clearwater basin to 56% for the Lochsa basin. Last year's normal snowpack produced average runoff volumes, so water users can bet on below normal volumes this year. The Selway and Lochsa rivers are forecast at 81% of average. The Clearwater River at Orofino is forecast at 80% of average while downstream at Spalding the forecast is slightly less at 78%. Dworshak Reservoir inflow is forecast at 77% of average and will bolster the reservoir contents, which is currently 87% of capacity, 124% of average. Less snow means lower peak flows and an earlier start to the whitewater river running season. Get your boats and fishing gear ready; outfitters are advertising trips on the Lochsa beginning the first week of May. Peak flows will be less than last year, which exceeded 30,000 cfs on the Selway River and 20,000 cfs on the Lochsa River!

CLEARWATER RIVER BASIN
Streamflow Forecasts - May 1, 2007

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter ======>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
SELWAY near Lowell	MAY-JUL	1170	1290	1370	80	1460	1580	1720
	MAY-SEP	1240	1370	1460	80	1550	1700	1830
LOCHSA near Lowell	MAY-JUL	875	965	1030	82	1100	1200	1250
	MAY-SEP	935	1030	1100	83	1170	1280	1330
DWORSHAK RESV INFLOW (1,2)	MAY-JUL	1200	1370	1490	76	1620	1810	1970
	MAY-SEP	1330	1510	1640	77	1780	1980	2130
CLEARWATER at Orofino (1)	MAY-JUL	2470	2760	2970	80	3190	3520	3730
	MAY-SEP	2650	2970	3190	80	3420	3780	3990
CLEARWATER at Spalding (1,2)	MAY-JUL	3420	4160	4500	78	4840	5580	5770
	MAY-SEP	3710	4510	4870	79	5230	6030	6190

CLEARWATER RIVER BASIN
Reservoir Storage (1000 AF) - End of April

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
DWORSHAK	3468.0	3005.0	2447.3	2421.3

CLEARWATER RIVER BASIN
Watershed Snowpack Analysis - May 1, 2007

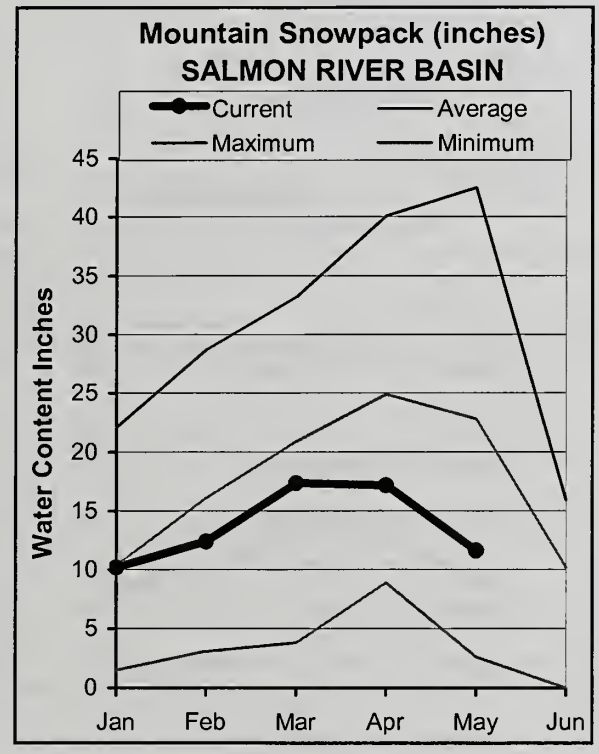
Watershed	Number of Data Sites	This Year as % of Last Yr	This Year as % of Average
North Fork Clearwater	9	75	73
Lochsa River	3	57	56
Selway River	4	57	58
Clearwater Basin Total	16	71	68

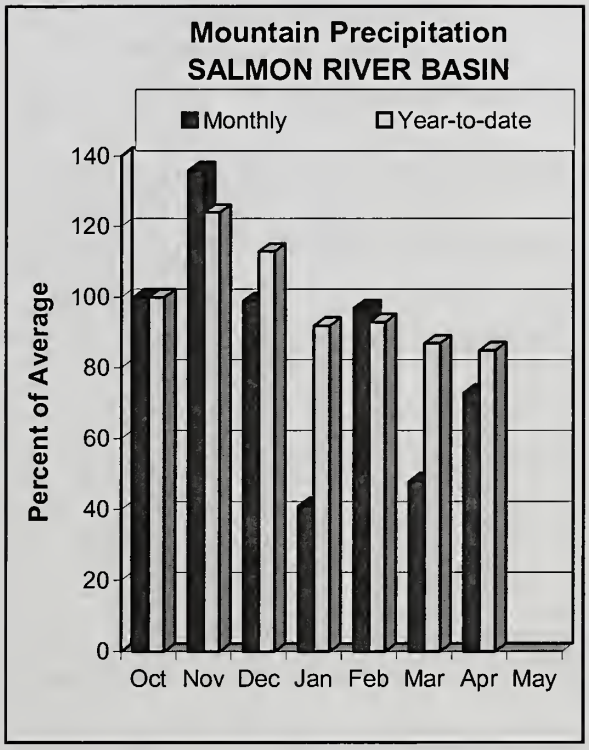
* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

SALMON RIVER BASIN
MAY 2007





WATER SUPPLY OUTLOOK

April was the fifth month in a row with below normal precipitation in the Salmon basin. Precipitation since October 1 is 85% of average for the basin. Lack of precipitation and warming temperatures allowed snow to melt in April. As of May 1, three of eighteen SNOTEL sites have melted out. In an average year all sites would still have snow, but this May snowpacks are only 55% of average, less than half of last year. Historical records rank the snowpack as the seventh lowest since 1963. As a result, the Salmon River at White Bird is forecast at 68% of average, the Middle Fork Salmon River is forecast at 64%, and the Lemhi River is only projected at 56%. The lack of mountain snow will provide a shorter, high water season on the Middle Fork Salmon River and it will return to low flow levels, about 2.0 feet in early July. In low snow years like this, rain generated peaks can exceed snowmelt generated peaks; this happened in 1991, 1994 and 2001. The snow at Banner Summit SNOTEL site was half melted May 2, which usually indicates the snowmelt streamflow peak has occurred. However, there is still enough snow up high that future temperatures and precipitation will determine if the next flush exceeds the 5.0 foot gage height peak recorded in early May. If you are looking for high water, keep an eye on the weather since the current 8-14 day outlook for early to mid-May is calling for above normal precipitation in central Idaho.

SALMON RIVER BASIN
Streamflow Forecasts - May 1, 2007

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
SALMON at Salmon (1)	MAY-JUL	415	470	515	68	560	630	760
	MAY-SEP	495	570	620	69	675	760	900
Lemhi River nr Lemhi	MAY-JUL	18.6	30	39	56	49	67	70
	MAY-SEP	27	42	53	60	66	87	89
MF Salmon at MF Lodge	MAY-JUL	320	390	440	63	495	580	700
	MAY-SEP	375	450	505	64	560	655	785
SALMON at White Bird (1)	MAY-JUL	2760	3160	3440	67	3740	4190	5150
	MAY-SEP	3170	3610	3920	68	4250	4750	5780

SALMON RIVER BASIN
Reservoir Storage (1000 AF) - End of April

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg

SALMON RIVER BASIN
Watershed Snowpack Analysis - May 1, 2007

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Salmon River ab Salmon	9	39	51
Lemhi River	7	65	67
Middle Fork Salmon River	3	38	46
South Fork Salmon River	3	41	52
Little Salmon River	4	27	38
Salmon Basin Total	25	45	55

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
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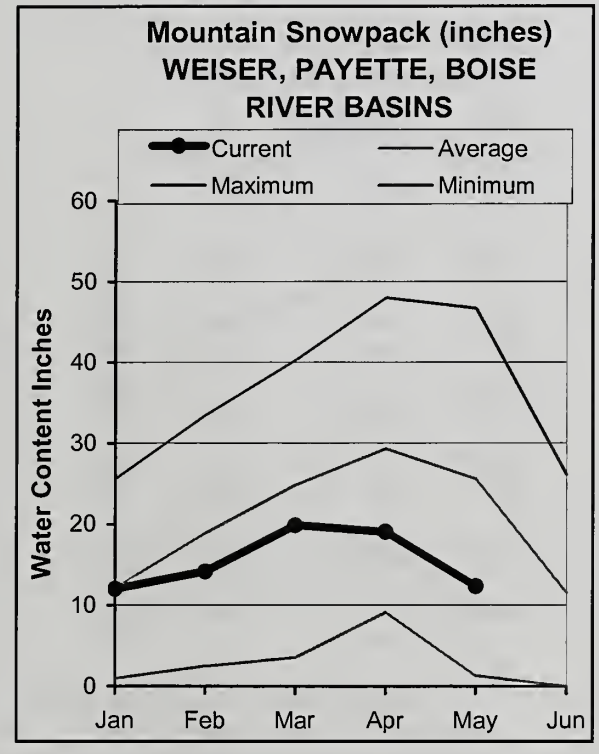
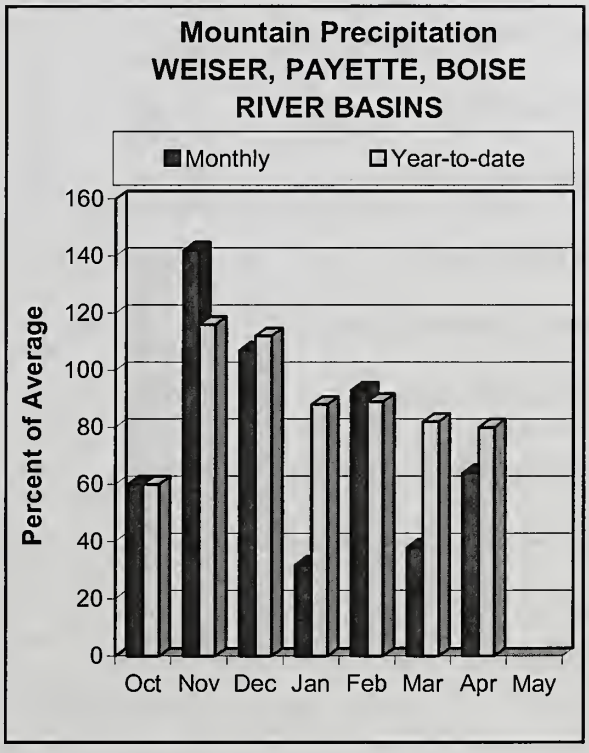
WEISER, PAYETTE, BOISE RIVER BASINS MAY 2007





WATER SUPPLY OUTLOOK

The snowpack is about half of what it should be for this time of year and melting fast. The proof is in the Payette, Weiser and Boise rivers as the streamflows are increasing (except where dam controlled). Some streams are even above average for this time of year, but that won't last long with the lack of high elevation snow. Current snowpacks are 48% of normal for the Boise basin, 46% for the Payette basin and only 22% for the Weiser basin headwaters. A helicopter snowline survey was performed on May 1 and showed the snowline elevation was 7,600 feet. There is still enough snow to generate another increase in streamflows. April precipitation was only 64% of normal, but May can be a good precipitation month; remember May 2005? Perhaps the best news is that the Boise reservoir system (Arrowrock, Anderson Dam and Lucky Peak) is at 88% of capacity, 130% of normal. Supplies are marginally adequate and some shortages could occur, especially if the weather remains dry. The Boise, Payette and Weiser rivers are forecast at 55% of average for the May-July period. The climate outlook calls for a wet and cool first half of May, so reservoir operators and river runners should watch for the next warm-up spell to see at least one more streamflow peak.

WEISER, PAYETTE, BOISE RIVER BASINS
Streamflow Forecasts - May 1, 2007

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
WEISER near Weiser (1)	MAY-JUL	85	114	136	53	160	199	255
	MAY-SEP	101	133	157	55	183	225	285
SF PAYETTE at Lowman	MAY-JUL	185	215	240	63	265	300	380
	MAY-SEP	225	260	285	66	310	355	435
DEADWOOD RESERVOIR Inflow (1,2)	MAY-JUL	50	59	66	57	73	85	116
	MAY-SEP	54	64	72	58	80	93	125
LAKE FORK PAYETTE near McCall	MAY-JUL	41	47	51	67	55	62	76
	MAY-SEP	43	49	53	67	57	64	79
NF PAYETTE at Cascade (1,2)	MAY-JUL	174	210	240	58	270	315	415
	MAY-SEP	174	215	245	56	275	330	435
NF PAYETTE nr Banks (2)	MAY-JUL	186	250	290	55	330	395	525
	MAY-SEP	182	250	295	54	340	410	550
PAYETTE nr Horseshoe Bend (1,2)	MAY-JUL	515	685	760	58	835	1000	1310
	MAY-SEP	565	745	830	58	915	1100	1430
BOISE near Twin Springs (1)	MAY-JUL	230	270	295	58	325	365	510
	MAY-SEP	265	305	335	59	365	415	565
SF BOISE at Anderson Ranch Dam (1,2)	MAY-JUL	149	184	210	49	240	280	430
	MAY-SEP	169	205	235	51	265	310	465
MORES CREEK near Arrowrock Dam	MAY-JUL	22	31	38	48	46	59	79
	MAY-SEP	24	33	41	48	49	63	85
BOISE near Boise (1,2)	MAY-JUL	370	510	575	53	640	780	1080
	MAY-SEP	440	590	660	56	730	880	1190

WEISER, PAYETTE, BOISE RIVER BASINS
Reservoir Storage (1000 AF) - End of April

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
MANN CREEK	11.1	10.2	11.1	10.5
CASCADE	693.2	588.7	406.6	462.5
DEADWOOD	161.9	132.4	99.4	103.4
ANDERSON RANCH	450.2	375.3	351.4	302.3
ARROWROCK	272.2	253.8	186.5	180.9
LUCKY PEAK	293.2	266.9	150.9	207.9
LAKE LOWELL (DEER FLAT)	165.2	97.9	92.2	141.5

WEISER, PAYETTE, BOISE RIVER BASINS
Watershed Snowpack Analysis - May 1, 2007

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Mann Creek	1	20	31
Weiser River	3	14	22
North Fork Payette	8	35	47
South Fork Payette	5	37	45
Payette Basin Total	14	35	46
Middle & North Fork Boise	5	39	49
South Fork Boise River	7	38	51
Mores Creek	4	32	37
Boise Basin Total	13	36	46
Canyon Creek	1	0	0

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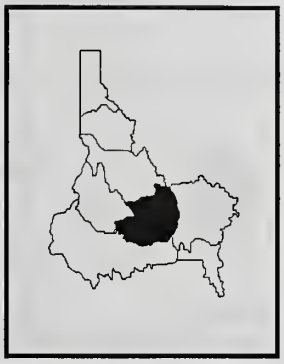
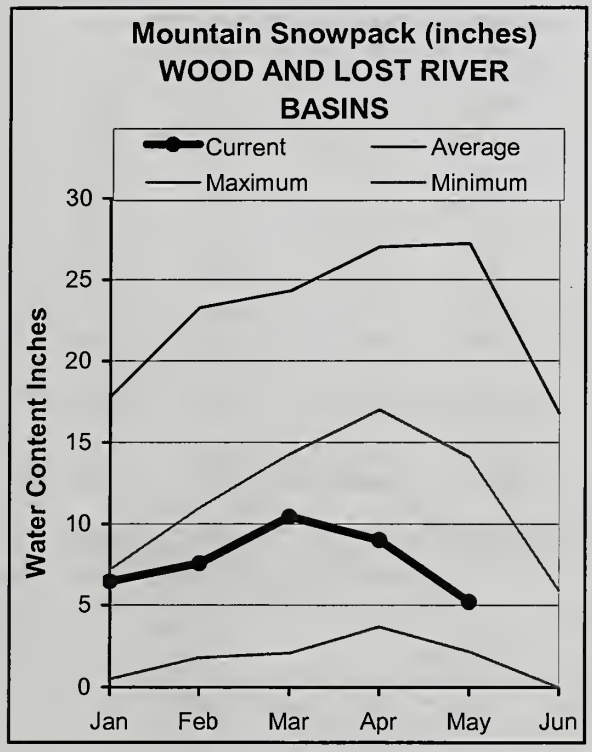
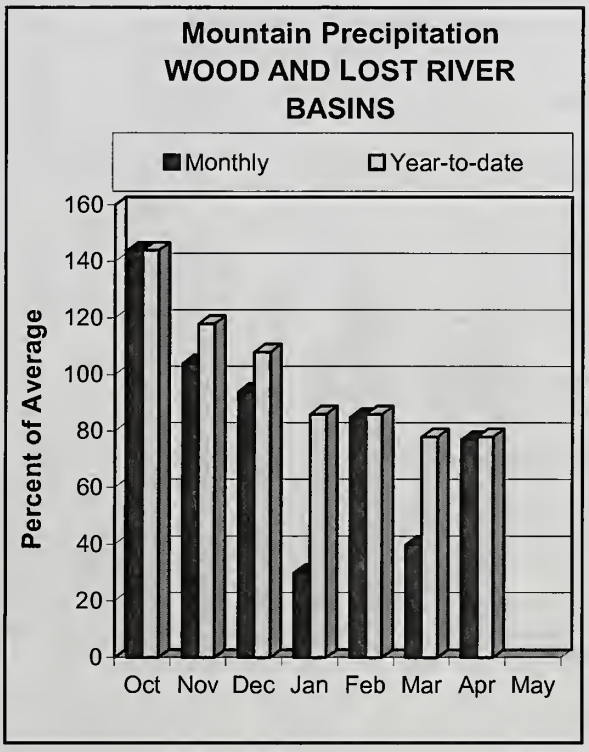
WOOD and LOST RIVER BASINS
MAY 1, 2007







WATER SUPPLY OUTLOOK

It is no surprise that the snowpacks are melting or have melted given the warm spring in Idaho. Not only were the temperatures warm, the mountains in the Wood and Lost drainages were deprived of much needed moisture that parts of southern Idaho received. Precipitation for April was 77% of normal and is only 78% of normal for the water year. As of May 1, these central Idaho snowpacks are 37% of normal for the region as a whole and the snow ranges from 17% in the Little Wood basin to 43% in the Big Wood basin. In 25 years of collecting May 1 SNOTEL data, only 1987 and 1992 had lower snowpacks in the Little Wood basin, and in 46 years of snow course and SNOTEL data, there were 5 other years with less snow in the Big Wood basin. As of May 1, the shallow and melting snowpacks have caused the rivers such as the Big Wood River at Hailey and Big Lost River at Howell Ranch to rise, but hopefully not peak yet. Both of these rivers are forecast at near 50% of normal through July; the Little Wood River is forecast at 32% of normal and the Big Wood River below Magic Dam has the lowest forecast in the basin at 22%. Climate conditions for May are forecast to start cool and wet, which would help preserve the remaining snowpack and improve natural river flows later this summer. Reservoirs are storing above average amounts, however, with limited inflows, shortages are still expected. The most severe shortages are expected in the Little Lost Basin, which is forecast at 18,900 acre-feet, 54% of average, about 4,000 acre-feet above its historic minimum.

WOOD AND LOST RIVER BASINS
Streamflow Forecasts - May 1, 2007

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
BIG WOOD at Hailey (1)	MAY-JUL	68	89	104	46	121	147	225
	MAY-SEP	82	105	122	47	141	171	260
BIG WOOD ab Magic Reservoir	MAY-JUL	8.0	22	34	21	49	77	165
	MAY-SEP	10.0	25	38	21	54	83	179
CAMAS CREEK near Blaine	MAY-JUL	2.3	7.1	12.0	28	18.1	29	43
	MAY-SEP	2.5	7.5	12.5	28	18.7	30	44
BIG WOOD below Magic Dam (2)	MAY-JUL	10.0	16.0	46	22	76	120	205
	MAY-SEP	12.0	19.0	50	23	81	127	220
LITTLE WOOD R ab High Five Ck	MAY-JUL	10.1	16.1	21	36	27	36	58
	MAY-SEP	12.5	19.4	25	39	31	42	65
LITTLE WOOD near Carey (2)	MAY-JUL	9.7	15.4	20	32	25	34	62
	MAY-SEP	11.4	17.8	23	33	29	39	70
BIG LOST at Howell Ranch	MAY-JUL	59	73	84	52	95	113	162
	MAY-SEP	69	86	98	53	111	132	186
BIG LOST bl Mackay Reservoir	MAY-JUL	26	41	53	41	66	89	129
	MAY-SEP	41	59	74	47	90	116	159
LITTLE LOST bl Wet Creek	MAY-JUL	10.5	13.2	15.2	56	17.3	21	27
	MAY-SEP	12.5	16.2	18.9	54	22	27	35

WOOD AND LOST RIVER BASINS
Reservoir Storage (1000 AF) - End of April

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
MAGIC	191.5	167.2	182.2	150.4
LITTLE WOOD	30.0	29.0	19.3	24.3
MACKAY	44.4	38.5	23.1	34.6

WOOD AND LOST RIVER BASINS
Watershed Snowpack Analysis - May 1, 2007

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Big Wood ab Hailey	7	29	43
Camas Creek	3	0	0
Big Wood Basin Total	10	26	39
Fish Creek	0	0	0
Little Wood River	4	10	17
Big Lost River	4	18	25
Little Lost River	3	34	36
Birch-Medicine Lodge Cree	2	63	60
Camas-Beaver Creeks	2	7	9

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

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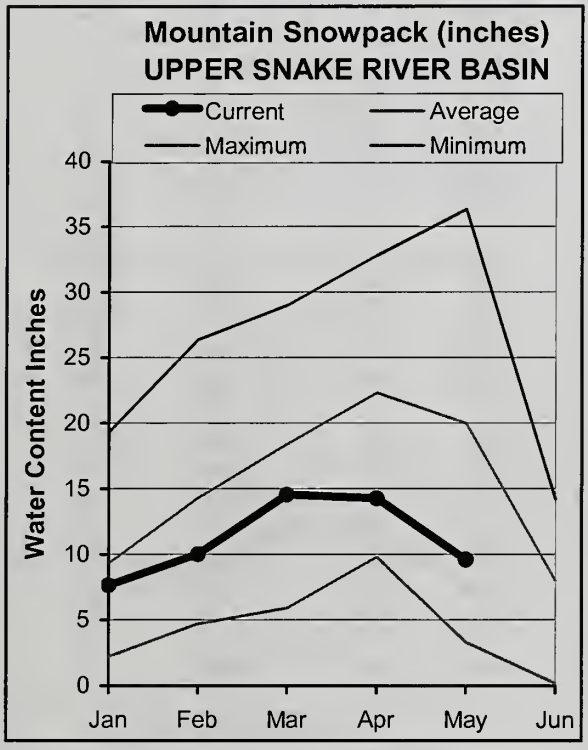
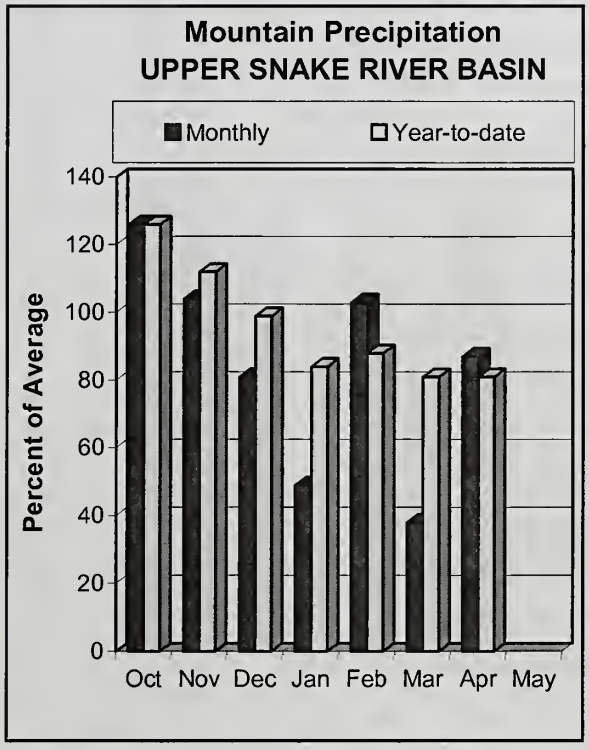
UPPER SNAKE BASINS
MAY 1 2007





WATER SUPPLY OUTLOOK

The best news about water supplies in the Upper Snake basin continues to be last year. The mountains of western Wyoming and eastern Idaho gained 1.5 - 4.0 inches of precipitation in April, which sounds good until you hear its only 87% of average. This was more than twice as much as March, but water year-to-date precipitation continues to lag behind normal at 81% of average. The news isn't any brighter looking at the snowpack, which is 48% of average for the Snake River basin above Palisades Reservoir, lowest since 1992. The Teton basin has the least snow at 28% of average, while the Gros Ventre basin has the most at 65%. Current reservoir storage is 89% of capacity, 122% of average for the Upper Snake River system; this includes Jackson Lake, Palisades, Grassy Lake, Island Park, Ririe, American Falls, Henrys Lake and Blackfoot reservoirs. The storage is good news and will provide much needed water to numerous water users. Streamflow forecasts range from 30-45% of average for Ririe, American Falls and Blackfoot inflows. The Snake River near Heise is forecast at 68% of average. By combining streamflow forecasts and storage levels, surface water supplies should be less than last year but better than 2000. Reservoir storage will remain high while the snow melts and inflow can keep up with outflow. After that, without spring rains, the demand for water will cause reservoir levels to begin declining by early summer. Looking ahead, it is likely that 2008 water supplies will be very dependent on good snowfall.

UPPER SNAKE RIVER BASIN
Streamflow Forecasts - May 1, 2007

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
HENRYS FORK near Ashton (2)	MAY-JUL	235	285	320	71	360	415	450
	MAY-SEP	380	445	490	76	540	610	645
HENRYS FORK near Rexburg (2)	MAY-JUL	733	864	960	72	1061	1218	1330
	MAY-SEP	1047	1217	1340	75	1469	1669	1780
FALLS RIVER nr Ashton (2)	MAY-JUL	181	215	235	70	255	290	335
	MAY-SEP	220	260	285	70	310	350	405
TETON RIVER NEAR DRIGGS	MAY-JUL	61	75	86	60	98	116	143
	MAY-SEP	85	103	116	62	130	151	188
TETON near St. Anthony	MAY-JUL	150	185	210	59	235	280	355
	MAY-SEP	200	240	270	62	300	350	435
SNAKE at Flagg Ranch	MAY-JUL	255	290	315	69	340	375	455
	MAY-SEP	280	320	350	69	380	420	505
SNAKE nr Moran (1,2)	MAY-JUL	411	479	525	70	571	639	750
	MAY-SEP	456	533	585	70	637	714	840
PACIFIC CREEK at Moran	MAY-JUL	65	86	101	63	116	137	160
	MAY-SEP	72	94	109	65	124	146	167
SNAKE ab resv nr Alpine (1,2)	MAY-JUL	1309	1399	1460	68	1521	1611	2160
	MAY-SEP	1542	1648	1720	68	1792	1898	2530
GREYS above Palisades	MAY-JUL	155	181	198	66	215	240	300
	MAY-SEP	192	220	240	68	260	290	355
SALT near Etna	MAY-JUL	96	139	168	60	197	240	280
	MAY-SEP	145	192	225	63	260	305	360
SNAKE nr Irwin (1,2)	MAY-JUL	1803	1902	1970	66	2038	2137	2980
	MAY-SEP	2184	2294	2370	67	2446	2556	3520
SNAKE near Heise (2)	MAY-JUL	2045	2072	2090	66	2108	2135	3170
	MAY-SEP	2470	2512	2540	68	2568	2610	3760
WILLOW CREEK nr Ririe (2)	MAY-JUL	3.6	11.0	18.3	31	27	44	60
BLACKFOOT RESV INFLOW	MAY-JUN	25	33	40	47	47	59	86
SNAKE nr Blackfoot (1,2)	MAY-JUL	1830	2290	2490	60	2690	3150	4130
	MAY-SEP	2560	3020	3220	63	3420	3880	5140
PORTNEUF at Topaz	MAY-JUL	22	29	34	52	40	48	65
	MAY-SEP	33	41	48	57	55	66	84
AMERICAN FALLS RESV INFLOW (1,2)	MAY-JUL	305	955	1250	47	1550	2200	2640
	MAY-SEP	355	1000	1300	45	1600	2250	2910

UPPER SNAKE RIVER BASIN
Reservoir Storage (1000 AF) - End of April

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
HENRYS LAKE	90.4	85.3	87.1	87.4
ISLAND PARK	135.2	130.5	116.6	123.2
GRASSY LAKE	15.2	13.4	9.4	12.7
JACKSON LAKE	847.0	681.2	482.1	471.1
PALISADES	1400.0	1297.7	691.2	862.6
RIRIE	80.5	61.9	78.8	56.2
BLACKFOOT	348.7	208.5	168.5	256.3
AMERICAN FALLS	1672.6	1623.6	1606.9	1493.8

UPPER SNAKE RIVER BASIN
Watershed Snowpack Analysis - May 1, 2007

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Henrys Fork-Falls River	9	41	50
Teton River	8	27	28
Henrys Fork above Rexburg	17	35	40
Snake above Jackson Lake	5	47	53
Gros Ventre River	3	73	52
Hoback River	5	51	42
Greys River	5	60	65
Salt River	5	44	41
Snake above Palisades	22	48	47
Willow Creek	7	0	0
Blackfoot River	3	0	0
Portneuf River	6	8	13
Snake abv American Falls	40	38	42

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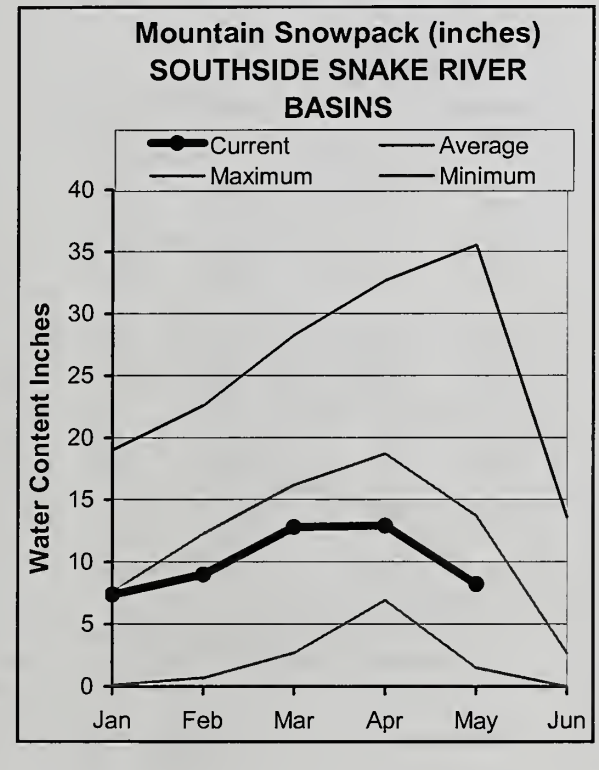
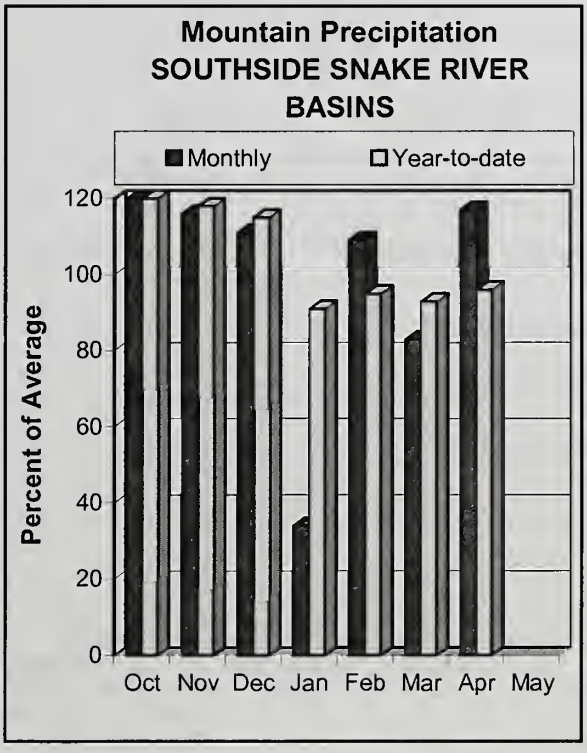
(2) - The value is natural volume - actual volume may be affected by upstream water management.

SOUTHSIDE SNAKE RIVER BASINS MAY 1, 2007





WATER SUPPLY OUTLOOK

As of May 1, the snowpacks in the Southside Snake River basins are 60% of normal. The warm spring in Idaho ripened the snow early, releasing the water from the mountains into the drainages. However, the current snowpack varies greatly in this region. Nearly all of the snow has melted in the Owyhee basin except on the highest mountain tops and is only at 5% of normal, thus peak streamflows have also occurred. Since 1981, only two other years (1987 and 1992) had lower snowpacks on May 1 in the Owyhee basin. The snow was completely melted out in those years. On the opposite end of the spectrum, Oakley basin has the best snowpack south of the Snake River at 50% of normal. Howell Canyon SNOTEL site is 101% of normal and is unlike any other site in the area. If we were to take this site out of the calculation, Oakley basin would only be 25% of normal. This site represents the highest elevations in this isolated mountain near Pomerelle Ski Resort and north of City of the Rocks Park. Pole Creek SNOTEL site, near the Salmon Falls and Bruneau basin divide, also stands out at 91% of normal, while lower elevation stations range from 0-60% of normal. The Bruneau River near Hot Springs started rising, but has not peaked yet, and is forecast at 64% of average for May-July. Residual streamflow forecasts for the Owyhee basins calls for 30-45% of normal volumes through July. Salmon Falls Creek is forecast at 58% of average. Reservoir storage is still the highlight for these Southside Snake River basins with Salmon Falls Reservoir at 53% full, 110% of average, Owyhee Reservoir at 77% of full, 90% of average and Oakley Reservoir at 68% full, 126% of average. Water supplies should be adequate for these reservoir water users but natural streamflow levels will be low by summer's end.

SOUTHSIDE SNAKE RIVER BASINS
Streamflow Forecasts - May 1, 2007

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
OAKLEY RESERVOIR INFLOW	MAY-JUL	7.2	10.5	13.0	62	15.8	20	21
	MAY-SEP	9.0	12.6	15.4	64	18.5	24	24
OAKLEY RESV STORAGE	MAY-31	46	48	50	111	52	54	45
	JUN-30	39	41	43	108	46	49	40
SALMON FALLS CREEK nr San Jacinto	MAY-JUL	18.7	27	33	58	40	51	57
	MAY-SEP	16.6	27	36	58	46	63	62
SALMON FALLS RESV STORAGE	MAY-31	89	95	99	98	103	109	101
	JUN-30	72	80	85	90	90	98	95
BRUNEAU near Hot Spring	MAY-JUL	62	85	104	64	124	158	162
	MAY-SEP	67	92	112	65	133	168	173
OWYHEE near Gold Creek (2)	MAY-JUL	0.9	2.7	4.5	38	6.8	10.9	12.0
	MAY-SEP	0.4	1.9	3.6	34	5.8	9.8	10.7
OWYHEE nr Owyhee (2)	MAY-JUL	9.2	16.2	22	44	29	40	50
OWYHEE near Rome	MAY-JUL	9.0	39	70	33	111	187	210
	MAY-SEP	16.0	51	86	37	130	210	230
OWYHEE RESV INFLOW (2)	MAY-JUL	21	36	71	32	115	198	225
	MAY-SEP	33	54	93	37	140	230	255
SUCCOR CK nr Jordan Valley	MAY-JUL	1.4	2.3	3.1	44	4.0	5.5	7.1
Reynolds Creek nr Tollgate	MAY-JUL	0.6	1.7	2.4	42	3.1	4.2	5.7

SOUTHSIDE SNAKE RIVER BASINS
Reservoir Storage (1000 AF) - End of April

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
OAKLEY	75.6	51.6	55.1	41.0
SALMON FALLS	182.6	96.6	93.9	87.9
WILDHORSE RESERVOIR	71.5	57.9	78.1	55.8
OWYHEE	715.0	553.9	690.9	613.6
BROWNLEE	1420.0	1335.9	839.4	1069.2

SOUTHSIDE SNAKE RIVER BASINS
Watershed Snowpack Analysis - May 1, 2007

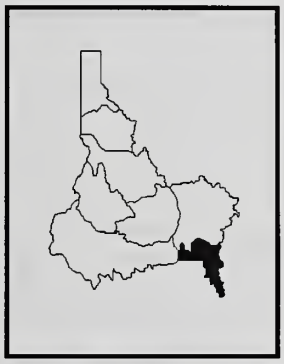
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Raft River	1	55	101
Goose-Trapper Creeks	4	32	50
Salmon Falls Creek	7	38	50
Bruneau River	5	44	57
Reynolds Creek	6	41	52
Owyhee Basin Total	7	5	5

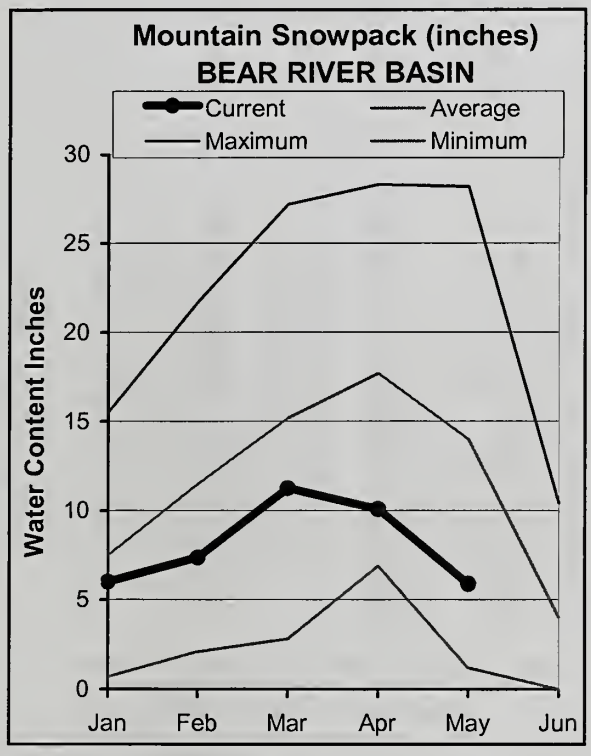
* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

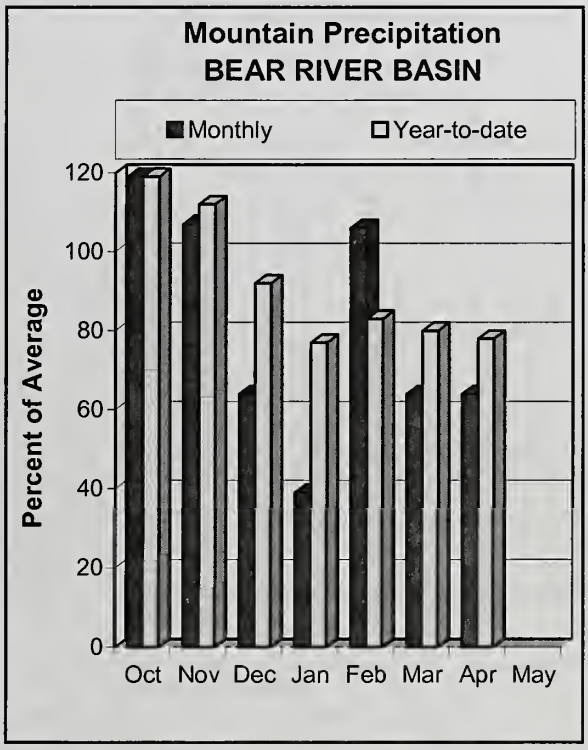
The average is computed for the 1971-2000 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

BEAR RIVER BASIN
MAY 2007







WATER SUPPLY OUTLOOK

There was a glimmer of hope in April that the dry conditions would turn around as the storm track moved through this region. While every bit of moisture helps, it wasn't enough to build the snowpacks, which are only at 42% of normal. Based on 46 years of data, there are only four other years with less snow in the headwater mountains of the Bear River above the Wyoming-Idaho border. April precipitation was only 64% of normal, and that brought the water year-to-date precipitation down to 78% of normal, from 80% of average a month ago. However, spring is not over and May climate forecasts are leaning towards cool and wet at least for the first half of May. The Bear River streamflow forecasts call for 63% of average in the headwater points and Smith Fork, and decreases to 22% for Big Creek near Randolph. The May-July observed flow for the Bear River at Stewart Dam is forecast at 23% of average. Streams have not reached their snowmelt streamflow peaks yet. The good news is Bear Lake is 46% full, 67% of average, and should satisfy user demands this season, but will be very low by the end of summer.

BEAR RIVER BASIN
Streamflow Forecasts - May 1, 2007

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter ======>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Bear River nr UT-WY State Line	APR-JUL	54	64	72	64	80	93	113
	MAY-JUL	44	54	62	58	70	83	107
	APR-SEP	59	70	79	63	88	103	125
	MAY-SEP	49	60	69	58	78	93	119
Bear River ab Reservoir nr Woodruff	APR-JUL	30	36	52	38	60	73	136
	MAY-JUL	17.0	24	40	35	48	61	116
	APR-SEP	31	38	54	38	62	77	142
	MAY-SEP	18.0	26	42	34	50	65	122
Big Creek nr Randolph	APR-JUL	0.6	1.1	1.6	32	2.2	3.5	4.9
	MAY-JUL	0.1	0.6	1.1	25	1.7	3.0	4.3
Smiths Fork nr Border	APR-JUL	44	53	60	58	67	79	103
	APR-SEP	54	64	71	59	80	94	121
	MAY-JUL	35	44	51	54	58	70	95
	MAY-SEP	45	55	63	56	71	85	112
Bear River at Stewart Dam	APR-JUL	36	39	51	22	61	89	234
	APR-SEP	36	40	59	23	65	97	262
	MAY-JUL	6.0	9.0	22	12	32	60	186
	MAY-SEP	6.0	11.0	30	14	36	68	214
Little Bear River at Paradise	APR-JUL	11.1	14.1	16.8	37	20	26	46
	MAY-JUL	2.8	5.8	8.5	27	11.7	17.3	32
Logan R Abv State Dam Nr Logan	APR-JUL	30	41	50	40	60	77	126
	MAY-JUL	16.0	27	36	33	46	63	108
Blacksmith Fk Abv Up&L Dam Nr Hyrum	APR-JUL	13.1	17.4	21	44	25	31	48
	MAY-JUL	6.8	11.1	14.6	37	18.6	25	40

BEAR RIVER BASIN
Reservoir Storage (1000 AF) - End of April

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
BEAR LAKE	1421.0	650.7	511.0	971.0
MONTPELIER CREEK	4.0	3.5	3.2	2.5

BEAR RIVER BASIN
Watershed Snowpack Analysis - May 1, 2007

Watershed	Number of Data Sites	This Year as % of Last Yr	This Year as % of Average
Smiths & Thomas Forks	4	58	62
Bear River ab WY-ID line	13	37	39
Montpelier Creek	2	58	65
Mink Creek	1	23	25
Cub River	1	23	35
Bear River ab ID-UT line	20	34	37
Malad River	1	0	0

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

Streamflow Adjustment List for All Forecasts Published in Idaho Water Supply Outlook Report: streamflow forecasts are projections of runoff volumes that would occur without influences from upstream reservoirs or diversions. These values are referred to as natural, unregulated or adjusted flows. To make these adjustments, changes in reservoir storage, diversions, and inter-basin transfers are added or subtracted from the observed (actual) streamflow volumes. The following list documents the adjustments made for each forecast point. **(Revised Dec. 2005).**

Panhandle River Basins

Kootenai R at Leonia, ID
+ Lake Koocanusa (Storage Change)
Boundary Ck nr Porthill, ID – No Corrections
Moyie R at Eastport, ID – No Corrections
Smith Creek nr Porthill, ID – No Corrections
Clark Fork R at Whitehorse Rapids, ID
+ Hungry Horse (Storage Change)
+ Flathead Lake (Storage Change)
+ Noxon Rapids Resv (Storage Change)
Pend Oreille Lake Inflow, ID
+ Pend Oreille R at Newport, WA
+ Hungry Horse (Storage Change)
+ Flathead Lake (Storage Change)
+ Noxon Rapids (Storage Change
+ Pend Oreille Lake (Storage Change)
+ Priest Lake (Storage Change)
Priest R nr Priest R, ID
+ Priest Lake (Storage Change)
NF Coeur d'Alene R at Enaville, ID - No Corrections
St. Joe R at Calder, ID - No Corrections
Spokane R nr Post Falls, ID
+ Coeur d'Alene Lake (Storage Change)
Spokane R at Long Lake, WA
+ Coeur d'Alene Lake (Storage Change)
+ Long Lake, WA (Storage Change)

Clearwater River Basin

Selway R nr Lowell - No Corrections
Lochsa R nr Lowell - No Corrections
Dworshak Resv Inflow, ID
+ Clearwater R nr Peck, ID
- Clearwater R at Orofino, ID
+ Dworshak Resv (Storage Change)
Clearwater R at Orofino, ID - No Corrections
Clearwater R at Spalding, ID
+ Dworshak Resv (Storage Change)

Salmon River Basin

Salmon R at Salmon, ID - No Corrections
Lemhi R nr Lemhi, ID – No Corrections
MF Salmon R at MF Lodge, ID – No Corrections
Salmon R at White Bird, ID - No Corrections

Weiser, Payette, Boise River Basins

Weiser R nr Weiser, ID - No Corrections
SF Payette R at Lowman, ID - No Corrections
Deadwood Resv Inflow, ID
+ Deadwood R blw Deadwood Resv nr Lowman
+ Deadwood Resv (Storage Change)
Lake Fork Payette R nr Mccall, ID – No Corrections
NF Payette R at Cascade, ID
+ Cascade Resv (Storage Change)
+ Payette Lake (Storage Change)
NF Payette R nr Banks, ID
+ Cascade Resv (Storage Change)
+ Payette Lake (Storage Change)
Payette R nr Horseshoe Bend, ID
+ Cascade Resv (Storage Change)
+ Deadwood Resv (Storage Change)
+ Payette Lake (Storage Change)
Boise R nr Twin Springs, ID - No Corrections
SF Boise R at Anderson Ranch Dam, ID
+ Anderson Ranch Resv (Storage Change)
Boise R nr Boise, ID
+ Anderson Ranch Resv (Storage Change)
+ Arrowrock Resv (Storage Change)
+ Lucky Peak Resv (Storage Change)

Wood and Lost River Basins

Big Wood R at Hailey, ID - No Corrections
Big Wood R abv Magic Resv, ID
+ Big Wood R nr Bellevue, ID
+ Willow Ck
Camas Ck nr Blaine – No Corrections
Big Wood R blw Magic Dam nr Richfield, ID
+ Magic Resv (Storage Change)
Little Wood R abv High Five Ck, ID – No Corrections
Little Wood R nr Carey, ID
+ Little Wood Resv (Storage Change)
Big Lost R at Howell Ranch, ID - No Corrections
Big Lost R blw Mackay Resv nr Mackay, ID
+ Mackay Resv (Storage Change)
Little Lost R blw Wet Ck nr Howe, ID - No Corrections

Upper Snake River Basin

Henrys Fork nr Ashton, ID
+ Henrys Lake (Storage Change)
+ Island Park Resv (Storage Change)
Henrys Fork nr Rexburg, ID
+ Henrys Lake (Storage Change)
+ Island Park Resv (Storage Change)
+ Grassy Lake (Storage Change)
+ Diversions from Henrys Fk btw Ashton to St. Anthony, ID
+ Diversions from Henrys Fk btw St. Anthony to Rexburg, ID
+ Diversions from Falls R abv nr Ashton, ID
+ Diversions from Falls R nr Ashton to Chester, ID
Falls R nr Ashton, ID
+ Grassy Lake (Storage Change)
+ Diversions from Falls R abv nr Ashton, ID
Teton R nr Driggs, ID - No Corrections
Teton R nr St. Anthony, ID
- Cross Cut Canal into Teton R
+ Sum of Diversions for Teton R abv St. Anthony, ID
Snake R nr Moran, WY
+ Jackson Lake (Storage Change)
Pacific Ck at Moran, WY – No Corrections
Snake R abv Palisades, WY
+ Jackson Lake (Storage Change)

Greys R abv Palisades, WY – No Corrections
Salt R abv Palisades, WY – No Corrections
Snake R nr Irwin, ID
+ Jackson Lake (Storage Change)
+ Palisades Resv (Storage Change)
Snake R nr Heise, ID
+ Jackson Lake (Storage Change)
+ Palisades Resv (Storage Change)
Willow Ck nr Ririe, ID
+ Ririe Resv (Storage Change)
Blackfoot Resvervoir Inflow, ID
+ Blackfoot Reservoir releases
+ Blackfoot Resv (Storage Change
Snake R nr Blackfoot, ID
+ Palisades Resv (Storage Change)
+ Jackson Lake (Storage Change)
+ Diversions from Snake R btw Heise and Shelly
+ Diversions from Snake R btw Shelly and Blackfoot
Portneuf R at Topaz, ID - No Corrections
American Falls Resv Inflow, ID
+ Snake River at Neeley
+ All Corrections made for Henrys Fk nr Rexburg, ID
+ Jackson Lake (Storage Change)
+ Palisades Resv (Storage Change)
+ Diversions from Snake R btw Heise and Shelly
+ Diversions from Snake R btw Shelly and Blackfoot

Southside Snake River Basins

Oakley Resv Inflow, ID
+ Goose Ck abv Trapper Ck
+ Trapper Ck nr Oakley
Salmon Falls Ck nr San Jacinto, NV - No Corrections
Bruneau R nr Hot Springs, ID - No Corrections
Owyhee R nr Gold Ck, NV
+ Wildhorse Resv (Storage Change)
Owyhee R nr Owyhee, NV
+ Wildhorse Resv (Storage Change)
Owyhee R nr Rome, OR – No Corrections
Owyhee Resv Inflow, OR
+ Owyhee R blw Owyhee Dam, OR
+ Owyhee Resv (Storage Change)
+ Diversions to North and South Canals
Succor Ck nr Jordan Valley, OR - No Corrections
Snake R at King Hill, ID - No Corrections
Snake R nr Murphy, ID - No Corrections
Snake R at Weiser, ID - No Corrections
Snake R at Hells Canyon Dam, ID
+ Brownlee Resv (Storage Change)

Bear River Basin

Bear R nr UT-WY Stateline, UT – No Corrections
Bear R abv Resv nr Woodruff, UT – No Corrections
Smiths Fork nr Border, WY - No Corrections
Bear R blw Stewart Dam nr Montpelier, ID
+ Bear R blw Stewart Dam
+ Rainbow Inlet Canal

Reservoir Capacity Definitions (Units in 1,000 Acre-Feet, KAF)

Different agencies use various definitions when reporting reservoir capacity and contents. Reservoir storage terms include dead, inactive, active, and surcharge storage. This table lists volumes for each reservoir, and defines the storage volumes NRCS uses when reporting capacity and current storage. In most cases, NRCS reports usable storage, which includes active and inactive storage. **(Revised Dec. 2005)**

Basin/ Reservoir	Dead Storage	Inactive Storage	Active Storage	Surcharge Storage	NRCS Capacity	NRCS Capacity Includes
Panhandle Region						
Hungry Horse	39.73	---	3451.00	---	3451.0	Active
Flathead Lake	Unknown	---	1791.00	---	1791.0	Active
Noxon Rapids	Unknown	---	335.00	---	335.0	Active
Pend Oreille	406.20	112.40	1042.70	---	1561.3	Dead+Inactive+Active
Coeur d'Alene	---	13.50	225.00	---	238.5	Inactive+Active
Priest Lake	20.00	28.00	71.30	---	119.3	Dead+Inactive+Active
Clearwater Basin						
Dworshak	---	1452.00	2016.00	---	3468.0	Inactive+Active
Weiser/Boise/Payette Basins						
Mann Creek	1.61	0.24	11.10	---	11.1	Active
Cascade	---	46.70	646.50	---	693.2	Inactive+Active
Deadwood	---	---	161.90	---	161.9	Active
Anderson Ranch	24.90	37.00	413.10	---	450.1	Inactive+Active
Arrowrock	---	---	272.20	---	272.2	Active
Lucky Peak	---	28.80	264.40	13.80	293.2	Inactive+Active
Lake Lowell	7.90	5.80	159.40	---	165.2	Inactive+Active
Wood/Lost Basins						
Magic	Unknown	---	191.50	---	191.5	Active
Little Wood	---	---	30.00	---	30.0	Active
Mackay	0.13	---	44.37	---	44.4	Active
Upper Snake Basin						
Henrys Lake	---	---	90.40	---	90.4	Active
Island Park	0.40	---	127.30	7.90	135.2	Active+Surcharge
Grassy Lake	---	---	15.18	---	15.2	Active
Jackson Lake	Unknown	---	847.00	---	847.0	Active
Palisades	44.10	155.50	1200.00	---	1400.0	Dead+Inactive+Active
Ririe	4.00	6.00	80.54	10.00	80.5	Active
Blackfoot	---	---	348.73	---	348.7	Active
American Falls	---	---	1672.60	---	1672.6	Active
Southside Snake Basins						
Oakley	---	---	75.60	---	75.6	Active
Salmon Falls	48.00	5.00	182.65	---	182.6	Active+Inactive
Wildhorse	---	---	71.50	---	71.5	Active
Owyhee	406.83	---	715.00	---	715.0	Active
Brownlee	0.45	444.70	975.30	---	1420.0	Inactive+Active
Bear River Basin						
Bear Lake	5.0 MAF	119.00	1302.00	---	1421.0	Active+Inactive: includes 119 that can be released
Montpelier Creek	0.21	---	3.84	---	4.0	Dead+Active

Interpreting Water Supply Forecasts

Introduction
Each month, five forecasts are issued for each forecast point and each forecast period. Unless otherwise specified, all streamflow forecasts are for streamflow volumes that would occur naturally without any upstream influences. Water users need to know what the different forecasts represent if they are to use the information correctly when making operational decisions. The following is an explanation of each of the forecasts.

90 Percent Chance of Exceedance Forecast. There is a 90 percent chance that the actual streamflow volume will exceed this forecast value, and there is a 10 percent chance that the actual streamflow volume will be less than this forecast value.

70 Percent Chance of Exceedance Forecast. There is a 70 percent chance that the actual streamflow volume will exceed this forecast value, and there is a 30 percent chance that the actual streamflow volume will be less than this forecast value.

50 Percent Chance of Exceedance Forecast. There is a 50 percent chance that the actual streamflow volume will exceed this forecast value, and there is a 50 percent chance that the actual streamflow volume will be less than this forecast value. Generally, this forecast is the middle of the range of possible streamflow volumes that can be produced given current conditions.

30 Percent Chance of Exceedance Forecast. There is a 30 percent chance that the actual streamflow volume will exceed this forecast value, and there is a 70 percent chance that the actual streamflow volume will be less than this forecast value.

10 Percent Chance of Exceedance Forecast. There is a 10 percent chance that the actual streamflow volume will exceed this forecast value, and there is a 90 percent chance that the actual streamflow volume will be less than this forecast value.

*Note: There is still a 20 percent chance that actual streamflow volumes will fall either below the 90 percent exceedance forecast or above the 10 percent exceedance forecast.

These forecasts represent the uncertainty inherent in making streamflow predictions. This uncertainty may include sources such as: unknown future weather conditions, uncertainties associated with the various prediction methodologies, and the spatial coverage of the data network in a given basin.

30-Year Average. The 30-year average streamflow for each forecast period is provided for comparison. The average is based on data from 1971-2000. The % AVG. column compares the 50% chance of exceedance forecast to the 30-year average streamflow; values above 100% denote when the 50% chance of exceedance forecast would be greater than the 30-year average streamflow.

AF - Acre-feet, forecasted volume of water are typically in thousands of acre-feet.

These forecasts are given to users to help make risk-based decisions. Users can select the forecast corresponding to the level of risk they are willing to accept in order to minimize the negative impacts of having more or less water than planned for.

To Decrease the Chance of Having Less Water than Planned for
A user might determine that making decisions based on a 50 percent chance of exceedance forecast is too much risk to take (there is still a 50% chance that the user will receive less than this amount). To reduce the risk of .having less water than planned for, users can base their operational decisions on one of the forecasts with a greater chance of being exceeded such as the 90 or 70 percent exceedance forecasts.

To Decrease the Chance of Having More Water than Planned for
A user might determine that making decisions based on a 50 percent chance of exceedance forecast is too much risk to take (there is still a 50% chance that the user will receive more than this amount). To reduce the risk of having more water than planned for, users can base their operational decisions on one of the forecasts with a lesser chance of being exceeded such as the 30 or 10 percent exceedance forecasts.

Using the forecasts - an Example
Using the 50 Percent Exceedance Forecast. Using the example forecasts shown below, there is a 50% chance that actual streamflow volume at the Boise River near Twin Springs will be less than 685 KAF between April 1 and July 31. There is also a 50% chance that actual streamflow volume will be greater than 685 KAF.

Using the 90 and 70 Percent Exceedance Forecasts. If an unexpected shortage of water could cause problems (such as irrigated agriculture), users might want to plan on receiving 610 KAF (from the 70 percent exceedance forecast). There is a 30% chance of receiving *less* than 610 KAF.

Alternatively, if users determine the risk of using the 70 percent exceedance forecast is too great, then they might plan on receiving 443 KAF (from the 90 percent exceedance forecast). There is 10% chance of receiving less than 443 KAF.

Using the 30 or 10 Percent Exceedance Forecasts. If an unexpected excess of water could cause problems (such as operating a flood control reservoir), users might plan on receiving 760 KAF (from the 30 percent exceedance forecast). There is a 30% chance of receiving *more* than 760 KAF.

Alternatively, if users determine the risk of using the 30 percent exceedance forecast is too great, then they might plan on receiving 927 KAF (from the 10 percent exceedance forecast). There is a 10% chance of receiving more than 927 KAF.

Users could also choose a volume in between any of these values to reflect their desired risk level.

Weiser, Payette, Boise River Basins
Streamflow Forecasts – January 2006

Forecast Point	Forecast Period	Chance of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000 AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
SF PAYETTE RIVER at Lowman	APR-JUL	329	414	471	109	528	613	432
	APR-SEP	369	459	521	107	583	673	488
BOISE RIVER near Twin Springs (1)	APR-JUL	443	610	685	109	760	927	631
	APR-SEP	495	670	750	109	830	1005	690

*90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table

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